



United States
Department Of
Agriculture

Forest
Service

Shasta-Trinity NFs
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Redding, CA 96001

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Reply To: 3420

Date: March 27, 1992

Subject: Hambone Timber Sale (Report No. N92-2)

To: Forest Supervisor, Shasta-Trinity NFs

Units of the Hambone Timber Sale are located toward the eastern boundary of the McCloud RD. Recent white fir mortality in the sale area is extensive enough to raise the question whether Catastrophic Damage, as outlined in contract clause B2.133, has occurred. I examined some sale units, and the general sale area, on March 13, 1992. Also present at that time were Lee Bunnell from the Supervisor's Office, and Frank Del Carlo, Len Park, and Debbi Selby from the District.

Most of the tree mortality observed was white fir, which had been killed by the fir engraver, Scolytus ventralis. The underlying causes for the mortality were heavy stocking on dry sites, combined with 5 consecutive years of drought. The distribution of the mortality was patchy, but it is apparent that white fir mortality is widespread over the eastern end of the McCloud RD, and the total volume is large. There is over 1MMBF of white fir which has been killed during the last 12 months in the Hambone Timber Sale area. Catastrophic Damage has occurred.

Not all of the white fir which were successfully attacked by the fir engraver during 1991 have faded yet. Some of the successfully attacked white firs had completely green crowns, while many others had only a few faded branches. Many additional white firs will fade as the weather warms during the summer of 1992. A rough, preliminary estimate of the 1992 white fir mortality is an average of about 300 board feet per acre spread over an area of about 85,000 acres of NFS land. The mortality is not evenly distributed. Lava flows and pine plantations currently have very low mortality. Most of the buttes on the east side of the district have visible mortality. The only heavy concentrations of mortality seen during an aerial flight on March 18, 1992 were on Whitlow Ridge, Hambone Butte, and Hunters Hill.

Based on the recent mortality trend on the Shasta-Trinity National Forests, as well as the historical pattern of true fir mortality which developed following the 1975-1977 drought, a large number of white fir should also be anticipated to fade during 1993. A reasonable estimate would be that the number of white fir trees which will fade during 1993 will be the same as, or slightly less than, the number which ultimately fade during this year.





Salvage of the dead and dying white fir will have little, or no effect on future mortality in the sale area. Removal of live trees by thinning should reduce future mortality, however, it is not easy to discriminate between attacked and unattacked white fir at this point. By the time that it will be easy to identify the white fir which are dying, those trees will already have been in the process of dying for 8 to 10 months. Virtually all white fir material over 10 inches diameter should be salvable through the fall of 1992. By the summer of 1993, the only 1992 white fir mortality which will still have any value as sawlogs will be the trees with a diameter greater than 22 inches. It would be reasonable to anticipate the need to kiln dry the white fir salvage to kill wood-boring insects.

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